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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,661	10/22/2003	Yu-Jih Liu	0918.0245C	6483
27896	7590	02/23/2006	EXAMINER	
EDELL, SHAPIRO & FINNAN, LLC 1901 RESEARCH BOULEVARD SUITE 400 ROCKVILLE, MD 20850			PHUONG, DAI	
			ART UNIT	PAPER NUMBER
				2688

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/689,661	LIU, YU-JIH	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dai A. Phuong	2688	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 12/15/2005.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-46 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 22 and 42 is/are allowed.
- 6) Claim(s) 1-5,8-10,13,15-21,23-25,28-30,33,35-41 and 43-46 is/are rejected.
- 7) Claim(s) 6-7,11-12,14,26-27,31-32 and 34 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 October 2003 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's arguments, filed 12/15/2005, with respect to claims have been considered but are moot in view of the new ground(s) of rejection. Claims 1-46 are currently pending.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, 15, 20, 23, 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (U.S. 6,445,921) in view of Larson et al. (Pub. No: 2003/0058883).

Regarding claim 1, Bell discloses in a communications network, a communication unit to transmit and receive information within said network comprising: at least one transmitter to transmit outgoing information to at least one other communication unit within said network (fig. 2, col. 2, lines 59-67); at least one receiver to receive incoming information from at least one other communication unit within said network (fig. 2, col. 2, lines 59-67); and a processor to control said transmission and reception of said outgoing and incoming information (fig. 2, col. 2, line 59 to col. 3, lines 26), wherein said processor includes: a reservation module 215 to reserve at least one communication link within said network for communicating with at least one other communication unit (fig. 2, col. 2, lines 59-67 and col. 3, line 61 to col. 4, line 13).

However, Bell does not disclose dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information.

In the same field of endeavor, Larson et al. disclose dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link ([0031] and [0041]). Specifically, Larson et al. disclose the host and user transceiver 205, 210 communicate with each other using a common communications protocol (i.e. a communications standard such DECT, PHS, NETBIOS, TCP/IP, etc.) that *defines the transmission parameters such as the format of data to be transmitted, error checking algorithm, retransmission scheme and also disclose a WLL controller 540 formats the packet, voice, and modem data according to the DECT protocol* and then provides it to a radio module 550 for transmission), wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information ([0010] to [0011]). In the other hand, Larson et al. disclose also *a reservation module 450 to reserve at least one communication link within said network for communicating with at least one other communication unit (fig. 4, [0038]).* Specifically, Larson et al. disclose the WSU 410 is capable of supporting voice and/or data communications. Specifically, the WSU 410 supports a single analog line 432 for a telephone 435 or a modem 440 to use, as well as a data line 442 for providing packet switched data access to the data processing system 450).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of Bell by specifically including disclose dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information, as taught by Larson et al., the motivation being in order to provided for accessing data that includes a source for providing data, and a memory having a first portion configured to receive the data from the source.

Regarding claim 3, the combination of Bell and Larson et al. disclose all the limitations in claim 1. Further, Bell discloses the unit wherein said at least one transmitter transmits said outgoing information in the form of radio signals (col. 2, line 59 to col. 3, lines 26).

Regarding claim 4, the combination of Bell and Larson et al. disclose all the limitations in claim 1. Further, Bell discloses the unit wherein said at least one receiver receives said incoming information in the form of radio signals (col. 2, line 59 to col. 3, lines 26).

Regarding claim 5, the combination of Bell and Larson et al. disclose all the limitations in claim 1. Further, Bell discloses the unit wherein said plurality of frame architectures is compatible with a Time Division Multiple Access (TDMA) scheme (col. 2, lines 34-44).

Regarding claim 15, the combination of Bell and Larson et al. disclose all the limitations in claim 1. Further, Bell discloses the unit wherein said processor further includes: a voice transmission module to process voice signals received by said unit and facilitate transmission of

said processed voice signals over said reserved communication link (col. 2, lines 34 to col. 3, lines 37).

Regarding claim 20, the combination of Bell and Larson et al. disclose all the limitations in claim 15. Further, Bell discloses the unit wherein said processor further includes: voice reception module to receive voice information from said network and process said received voice signals for conveyance to a user (col. 2, lines 34 to col. 3, lines 37).

Regarding claim 23, this claim is rejected for the same reason as set forth in claim 1.

Regarding claim 43, Bell discloses a communications network comprising: a plurality of communication units for transferring information there between, wherein at least one communication link within said network is reserved by a communication unit for communicating with at least one other communication unit (col. 2 lines 34-67).

However, Bell does not disclose said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information.

In the same field of endeavor, Larson et al. disclose said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link ([0031] and [0041]. Specifically, Larson et al. disclose the host and user transceiver 205, 210 communicate with each other using a common communications protocol (i.e. a communications standard such DECT, PHS,

NETBIOS, TCP/IP, etc.) that *defines the transmission parameters such as the format of data to be transmitted*, error checking algorithm, retransmission scheme and also disclose a WLL controller 540 *formats the packet, voice, and modem data according to the DECT protocol* and then provides it to a radio module 550 for transmission), wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information ([0010] to [0011]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of Bell by specifically including said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information, as taught by Larson et al., the motivation being in order to provided for accessing data that includes a source for providing data, and a memory having a first portion configured to receive the data from the source.

Regarding claim 45, Bell discloses in a communications network, a method of transferring information between communication units within said network comprising: (a) reserving at least one communication link within said network for communications between at least two communication units (col. 2, lines 34-67).

However, Bell does not disclose said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over

said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information.

In the same field of endeavor, Larson et al. disclose said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link ([0031] and [0041]. Specifically, Larson et al. disclose the host and user transceiver 205, 210 communicate with each other using a common communications protocol (i.e. a communications standard such DECT, PHS, NETBIOS, TCP/IP, etc.) that *defines the transmission parameters such as the format of data to be transmitted*, error checking algorithm, retransmission scheme and also disclose a WLL controller 540 *formats the packet, voice, and modem data according to the DECT protocol* and then provides it to a radio module 550 for transmission), wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information ([0010] to [0011]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of Bell by specifically including said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information, as taught by Larson et al.,

the motivation being in order to provide for accessing data that includes a source for providing data, and a memory having a first portion configured to receive the data from the source.

4. Claims 2, 8-10, 13, 16-17, 21, 24-5, 28-30, 33, 35-37, 40-41, 44 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (U.S. 6,445,921) in view of Larson et al. (Pub. No: 2003/0058883) and further in view of Kondylis et al. (Pub. No: 2003/0012176).

Regarding claim 2, the combination of Bell and Larson et al. disclose all the limitations in claim 1. However, the combination of Bell and Larson et al. do not disclose the unit wherein said network is a wireless Ad-Hoc network and said incoming and outgoing information includes voice.

In the same field of endeavor, Kondylis et al. disclose the unit wherein said network is a wireless Ad-Hoc network and said incoming and outgoing information includes voice ([0009] and [0019])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of the combination of Bell and Larson et al. by specifically including the unit wherein said network is a wireless Ad-Hoc network and said incoming and outgoing information includes voice, as taught by Kondylis et al., the motivation being in order to provide a mechanism for dynamically adjusting reservation.

Regarding claim 8, the combination of Bell and Larson et al. disclose all the limitations in claim 1. However, the combination of Bell and Larson et al. do not disclose the unit wherein said reservation module includes: a neighbor module to facilitate transmission of information relating to said reservation to neighboring communication units in response to reservation of said

at least one communication link, wherein said reservation information is disposed within neighbor discovery packets periodically transmitted by said unit.

In the same field of endeavor, Kondylis et al. disclose the unit wherein said reservation module includes: a neighbor module to facilitate transmission of information relating to said reservation to neighboring communication units in response to reservation of said at least one communication link, wherein said reservation information is disposed within neighbor discovery packets periodically transmitted by said unit ([0061] to [0063] and [0066] to [0072]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of the combination of Bell and Larson et al. by specifically including disclose the unit wherein said reservation module includes: a neighbor module to facilitate transmission of information relating to said reservation to neighboring communication units in response to reservation of said at least one communication link, wherein said reservation information is disposed within neighbor discovery packets periodically transmitted by said unit, as taught by Kondylis et al., the motivation being in order to provide a mechanism for dynamically adjusting reservation.

Regarding claim 9, the combination of Bell and Larson et al. disclose all the limitations in claim 1. However, the combination of Bell and Larson et al. do not disclose the unit wherein said selected frame architecture includes a plurality of time slots serving as said communication link, and said reservation module includes: a reservation request module to facilitate transmission of a reservation packet along a routing path to a destination communication unit, wherein said reservation packet requests reservation of particular time slots for communication with said destination unit.

In the same field of endeavor, Kondylis et al. disclose disclose the unit wherein said selected frame architecture includes a plurality of time slots serving as said communication link, and said reservation module includes: a reservation request module to facilitate transmission of a reservation packet along a routing path to a destination communication unit, wherein said reservation packet requests reservation of particular time slots for communication with said destination unit ([0061] to [0063] and [0066] to [0072]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of the combination of Bell and Larson et al. by specifically including disclose the unit wherein said frame architecture includes a plurality of time slots serving as said communication link, and said reservation module includes: a reservation request module to facilitate transmission of a reservation packet along a routing path to a destination communication unit, wherein said reservation packet requests reservation of particular time slots for communication with said destination unit, as taught by Kondylis et al., the motivation being in order to provide a mechanism for dynamically adjusting reservation.

Regarding claim 10, the combination of Bell, Larson et al. and Kondylis et al. discloses all the limitations in claim 9. Further, Kondylis et al. disclose the unit wherein said reservation module further includes: a request module to store time slot reservations received within a reservation packet from another communication unit and to process said received time slot reservations in accordance with reservation information within said received reservation packet ([0061] to [0063] and [0066] to [0072]).

Regarding claim 13 the combination of Bell, Larson et al. and Kondylis et al. discloses all the limitations in claim 9. Further, Kondylis et al. disclose the unit wherein said reservation module further includes: a reservation confirmation module to process a confirmation packet received in response to confirmation of a reservation, wherein said confirmation packet includes information relating to reserved time slots and said selected frame architecture and is transmitted to a unit requesting the particular reservation ([0059] to [0061]).

Regarding claim 16, the combination of Bell and Larson et al. disclose all the limitations in claim 15. However, the combination of Bell and Larson et al. do not disclose the unit wherein said voice transmission module includes: a silence detection module to detect silence frames within said received voice signals and prevent transmission of said detected silence frames.

In the same field of endeavor, Kondylis et al. disclose the unit wherein said voice transmission module includes: a silence detection module to detect silence frames within said received voice signals and prevent transmission of said detected silence frames ([0066] to [0067] and [0071] to [0072]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of the combination of Bell and Larson et al. by specifically including wherein said voice transmission module includes: a silence detection module to detect silence frames within said received voice signals and prevent transmission of said detected silence frames, as taught by Kondylis et al., the motivation being in order to provide a mechanism for dynamically adjusting reservation.

Regarding claim 17, the combination of Bell and Larson et al. disclose all the limitations in claim 1. However, the combination of Bell and Larson et al. do not disclose the unit wherein

said processor further includes: a retransmission module to facilitate retransmission of voice information in response to absence of an acknowledgement of said transmitted voice signals.

In the same field of endeavor, Kondylis et al. disclose wherein said processor further includes: a retransmission module to facilitate retransmission of voice information in response to absence of an acknowledgement of said transmitted voice signals ([0059] to [0061]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of the combination of Bell and Larson et al. by specifically including wherein said processor further includes: a retransmission module to facilitate retransmission of voice information in response to absence of an acknowledgement of said transmitted voice signals, as taught by Kondylis et al., the motivation being in order to provide a mechanism for dynamically adjusting reservation.

Regarding claim 21, the combination of Bell and Larson et al. disclose all the limitations in claim 15. However, the combination of Bell and Larson et al. do not disclose the unit wherein said processor further includes: a termination module to terminate communications over said at least one reserved communication link and to remove said reservation of said at least one communication link.

In the same field of endeavor, Kondylis et al. disclose wherein said processor further includes: a termination module to terminate communications over said at least one reserved communication link and to remove said reservation of said at least one communication link ([0066] to [0067]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of the combination of Bell and Larson et al. by specifically including unit wherein said processor further includes: a termination module to terminate communications over said at least one reserved communication link and to remove said reservation of said at least one communication link, as taught by Kondylis et al., the motivation being in order to provide a mechanism for dynamically adjusting reservation.

Regarding claim 24, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 25, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 28, this claim is rejected for the same reason as set forth in claim 8.

Regarding claim 29, this claim is rejected for the same reason as set forth in claim 9.

Regarding claim 30, this claim is rejected for the same reason as set forth in claim 10.

Regarding claim 33, this claim is rejected for the same reason as set forth in claim 13.

Regarding claim 35, this claim is rejected for the same reason as set forth in claim 15.

Regarding claim 36, this claim is rejected for the same reason as set forth in claim 16.

Regarding claim 37, this claim is rejected for the same reason as set forth in claim 17.

Regarding claim 40, this claim is rejected for the same reason as set forth in claim 20.

Regarding claim 41, this claim is rejected for the same reason as set forth in claim 21.

Regarding claim 44, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 46, this claim is rejected for the same reason as set forth in claim 2.

5. Claims 18-19 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (U.S. 6,445,921) Bell (U.S. 6,445,921) in view of Larson et al. (Pub. No: 2003/0058883)

and in view of Kondylis et al. (Pub. No: 2003/0012176) and further in view of Shiraga (Pub. No: 2004/0209627).

Regarding claim 18, the combination of Bell, Larson et al. and Kondylis et al. disclose all the limitations in the claim 17. However, the combination of Bell, Larson et al. and Kondylis et al. do not disclose the unit wherein said voice transmission module facilitates transmission of said processed voice signals on a first frequency channel, and said retransmission module facilitates retransmission of said processed voice signals on a second different frequency channel.

In the same field of endeavor, Shiraga discloses the unit wherein said voice transmission module facilitates transmission of said processed voice signals on a first frequency channel, and said retransmission module facilitates retransmission of said processed voice signals on a second different frequency channel ([0061] to [0064]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communication device of the combination of Bell, Larson et al. and Kondylis et al. by specifically including disclose the unit wherein said voice transmission module facilitates transmission of said processed voice signals on a first frequency channel, and said retransmission module facilitates retransmission of said processed voice signals on a second different frequency channel, as taught by Shiraga, the motivation being in order to provide a communication link between first terminal and second terminal with each other without communication crossing with the other terminal apparatuses.

Regarding claim 19, the combination of Bell, Larson et al. and Kondylis et al. and Shiraga disclose all the limitations in the claim 18. Further, the combination of Bell and Kondylis

et al. disclose the unit wherein said frame architecture includes transmission slots within a first half of said frame and retransmission slots within a second half of said frame ([0059] to [0061]).

Regarding claim 38, this claim is rejected for the same reason as set forth in claim 18.

Regarding claim 39, this claim is rejected for the same reason as set forth in claim 19.

#### **Reasons Subject Matter**

6. Claims 6-7, 11, 12, 14, 26-27, 31, 32 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7 and 27 are dependent on claims 6 and 26 respectively.

Regarding claims 6 and 26, the prior art record does not disclose nor fairly suggest the unit wherein said *selected frame architectures includes a plurality of time slots serving as said communication link; and said plurality of time slots includes for a simplex mode at least one time slot associated with a transmission path, for a duplex mode at least one additional time slot associated with a receiving path, for a retransmission mode at least one additional time slot to said simplex or duplex modes and associated with a retransmission of information, and at least one time slot associated with an acknowledgement.*

Regarding claims 11 and 31, the prior art record does not disclose nor fairly suggest the unit wherein said request module includes: a slot module to determine, in response to said unit being an intermediate unit within said routing path, available time slots for transmission and retransmission of information in accordance with said reservation information, wherein said reservation information includes information relating to a selected game architecture and time slots utilized by previous units within said routing path; *a configuration module to determine, in*

*response to said unit being an intermediate unit within said routing path, a frame architecture supported by said unit when said selected frame architecture is incompatible with said unit; a slot availability module to adjust, in response to said unit being an intermediate unit within said routing path, a quantity of empty slots within said reservation packet when said empty slot quantity is greater than a quantity of empty slots associated with said unit; and a transmission module to transmit, in response to said unit being an intermediate unit within said routing path, said reservation packet to a succeeding unit within said routing path.*

Regarding claims 12 and 32, the prior art record does not disclose nor fairly suggest the unit wherein said request module includes: a frame module to determine, in response to said unit being a destination unit, a frame architecture supported by each unit within said routing path; a slot reservation module to reserve, in response to said unit being a destination unit, said time slots requested for reservation; and a reservation transmission module to transmit, in response to said unit being a destination unit, a confirmation packet including reservation information to said unit requesting a reservation and reservation information to neighboring units.

Regarding claims 14 and 34, the prior art record does not disclose nor fairly suggest the unit wherein said reservation confirmation module includes; a configuration update module to update, in response to said unit being at least one of an intermediate routing path unit and said requesting unit, a frame architecture in accordance with said frame architecture within said confirmation packet; a slot update module to update, in response to said unit being at least one of an intermediate routing path unit and said requesting unit, said reserved time slots in accordance with said updated frame architecture; a slot selection module to select, in response to said unit

being at least one of an intermediate routing path unit and said requesting unit, time slots to facilitate communication in a return path; **an acknowledgement reservation module to reserve an acknowledgement slot in response to said unit being said requesting unit and said frame architecture supporting retransmission; and a confirmation transmission module to transmit, in response to said unit being at least one of an intermediate routing path unit and said requesting unit, confirmation information to neighboring units, wherein said confirmation information includes said frame architecture and time slots.**

*Reasons for Allowance*

7. The following is an examiner's statement of reasons for allowed:

Claims 22 and 42 are allowed.

Regarding claim 22, the prior art record does not disclose nor fairly suggest in communications network, a communication unit to transmit and receive information within said network comprising: at least one transmitter to transmit outgoing information to at least one other communication unit within said network; at least one receiver to receive incoming information from at least one other communication unit within said network; and a processor to control said transmission and reception of said outgoing and incoming information, wherein a data channel facilitates reservation of a communication link and a voice channel facilitates transfer of voice information, and said processor includes: ***a reservation module to reserve at least one communication link within said network for communication with at least one other communication unit and to dynamically select a frame architecture to facilitate said communications over said reserved communication links; a data allocation module to allocate data to said voice channel in response to utilization of said voice channel being below a first***

*utilization threshold and utilization of said data channel being greater than a second utilization threshold; and a voice allocation module to allocate voice information to said data channel in response to utilization of said data channel being below said first utilization threshold and utilization of said voice channel being greater than said second utilization threshold; wherein said first utilization threshold indicates light utilization and said second utilization threshold indicates heavy utilization.*

Regarding claim 42, the prior art record does not disclose nor fairly suggest in a communication unit of a network, wherein said unit includes a data channel to facilitate said reservation of a communication link and a voice channel to facilitate transfer of voice information, a method of transferring information with other communication units within said network comprising: *(a) reserving at least one communication link within said network for communications with at least one other communication unit and dynamically selecting a frame architecture to facilitate said communications over said re-served communication links wherein and step (a) further includes: (a. 1) allocating data to said voice channel in response to utilization of said voice channel being below a first utilization threshold and utilization of said data channel being greater than a second utilization threshold; and (a.2) allocating voice information to said data channel in response to utilization of said data channel being below said first utilization threshold and utilization of said voice channel being greater than said second utilization threshold; wherein said first utilization threshold indicates light utilization and said second utilization threshold indicates heavy utilization.*

*Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramos Feliciano Eliseo can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong  
AU: 2688  
Date: 02-16-2006



ELISEO RAMOS-FELICIANO  
PATENT EXAMINER